

Application No.: 10/563,509
Amendment Dated December 2, 2009
Reply to Office Action of September 3, 2009

MAT-8791US

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An image signal processing device comprising:

a semiconductor integrated circuit having:

a video signal processing unit for outputting video output data to a display device in a plurality of fields; and

a control unit for holding data for controlling an operation of the video signal processing unit; and

an external memory that is disposed outside the semiconductor integrated circuit, holds control data to be fed to the control unit, and allows data read to be controlled by the control unit,

wherein data transferred between the external memory and the control unit has data that must be updated in every field of the plurality of fields and data that does not need to be updated in every field of the plurality of fields, and is transferred in a vertical blanking time period of the video output data, and

the data that does not need to be updated in every field is divided into a plurality of reduced size data having a common size corresponding to a length of the vertical blanking time period, the plurality of reduced size data assigned to the plurality of fields respectively, and transferred.

2. (Previously Presented) The image signal processing device according to claim 1,

wherein the video signal processing unit has a memory for holding the data that must be updated in every field and a memory for holding the data that does not need to be updated in every field.

3. (Previously Presented) The image signal processing device according to claim 1,

wherein the data is divided into the plurality of reduced size data to ensure that each one of the plurality of data can be transferred between the external memory and the control unit, respectively during successive vertical blanking periods.

4. (Currently Amended) An image signal processing device for a display device performing a display according to a subfield driving method comprising:

a semiconductor integrated circuit having:

a video signal processing unit for outputting video output data to the display device in a plurality of fields; and

a control unit for holding data for controlling an operation of the video signal processing unit; and

an external memory that is disposed outside the semiconductor integrated circuit, holds control data to be fed to the control unit, and allows data read to be controlled by the control unit,

wherein the video signal processing unit includes:

an image quality correcting circuit for signal processing to correct image quality of video signal data input into the video signal processing unit,

a subfield converting circuit for generating a signal for every subfield of the plurality of fields based on output data from the image quality correcting circuit,

a first memory for holding data, that must be updated in every field of the plurality of fields, required by the image quality correcting circuit, and

a second memory for holding data, that does not need to be updated in every field of the plurality of fields, required by the subfield converting circuit,

wherein the semiconductor integrated circuit has a plurality of terminals and at least two of the plurality of terminals are used for both outputting the video output data output from the video signal processing unit and transferring data between the external memory and the control unit, and

the data transferred between the external memory and the control unit has the data that must be updated in every field and the data that does not need to be updated in every field, and is transferred in a vertical blanking time period of the video output data, and

ROM data stored in the external memory in the vertical blanking time period are acquired into the second memory for holding the data required by the subfield converting circuit in every field and an operation of the subfield converting circuit is controlled based on the ROM data,

the data that does not need to be updated in every field is divided into a plurality of data having a common size corresponding to a length of the vertical blanking time period, assigned to the plurality of fields respectively, and transferred.

5. (Previously Presented) The image signal processing device according to claim 4, wherein a line for outputting the video output data is connected with a line for outputting the data output from the external memory.

6. (Previously Presented) The image signal processing device according to claim 4, wherein the data that does not need to be updated in every field is divided into a plurality of reduced size data corresponding to a length of the vertical blanking time period, the plurality of reduced size data assigned to the plurality of fields respectively, and transferred.